Patent law: patentability of computer-implemented inventions

2002/0047(COD) - 20/02/2002 - Legislative proposal

PURPOSE : to lay down rules relating to the patentability of computer-implemented inventions.
CONTENT : the European Commission has presented a proposal for a Directive on the protection by patents of computer-implemented inventions. The proposed Directive would harmonise the way in which national patent laws deal with inventions using software. Such inventions can already be patented by applying to either the European Patent Office (EPO) or the national patent offices of the Member States, but the detailed conditions for patentability may vary. The Commission's proposal follows extensive consultations since 1997. The proposal takes as its basis the concept of "technical contribution" as an essential requirement of any patentable invention. This approach is consistent with the case law developed over the years in the EPO and the Member States. It implies that a computer-implemented invention which makes a "technical contribution" to the state of the art, which would not be obvious to a person of normal skill in the field concerned, is more than just a computer program "as such" and can therefore be patented. The requirement for a "technical contribution" is fully consistent with the European Patent Convention and the EU's wider international obligations. Such a requirement for a "technical contribution" has been established in case law. The proposed Directive, by creating transparency and legal certainty, would create an environment in which innovation could be most effectively protected and fostered. At the same time, it would put beyond doubt that creations in which the innovative element is not technical in nature, that is to say which make no technical contribution, cannot be patented. The proposal thus addresses concerns that EU patent law might in future be extended to cover fields of human endeavour which have up to now been excluded, in particular business methods and mathematical entities or logical constructs having no relation to the physical world. According to the proposal, a patent would normally cover inventive concepts and principles that underlie particular components of a software program. Just like a complex piece of physical machinery such as a car or a refrigerator, a software application may depend on its proper functioning on many different components, only some of which could be patented. This is an important distinction with copyright law. While copyright protects the entire code of an operating system, game or piece of business software against unauthorised copying, distribution and use, a patent would cover only the specifically-patented components. The proposal would not allow patents to be granted for computer programs on their own, i.e. in isolation from a machine on which they may be run. This marks a different approach to the direction taken until now by the EPO and some case law in Member States. The proposal therefore reflects concerns that if 'isolated' computer programs could be patented, this would blur the distinction between the scope of copyright and patent protection, and that if enforced, patents including such claims could be used to prevent "reverse engineering" and other activities considered legitimate in respect of computer programs already protected under copyright law. The proposal would require the Commission to monitor the impactof computer-implemented inventions and to report to the Parliament and the Council on the operation of the Directive within three years of its implementation by Member States. This provides an important safeguard which would allow any necessary adjustments to be made. The Directive would have no direct legal effect on the European Patent Office. However, once the Directive was implemented, the Commission would consider taking action to resolve any inconsistencies in the context of the European Patent Convention. This has already been done on a previous occasion (with the Biotechnology Patents Directive 98/44/EC), with no particular difficulty. In any case, European Patents, once granted, become subject to national laws, so any patents granted after the Directive took effect and which were inconsistent with its provisions would need to be amended to bring them into conformity (or be revoked).